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IN THE UNITED STATES DISTRICT COURT FOR THE
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                   NORTHERN DISTRICT OF OKLAHOMA
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     W. A. DREW EDMONDSON, in his )
5
     capacity as ATTORNEY GENERAL )
     OF THE STATE OF OKLAHOMA and )
6
     OKLAHOMA SECRETARY OF THE
     ENVIRONMENT C. MILES TOLBERT,)
7
     in his capacity as the
     TRUSTEE FOR NATURAL RESOURCES)
8
     FOR THE STATE OF OKLAHOMA,
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                  Plaintiff,
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                                    ) 4:05-CV-00329-TCK-SAJ
     VS.
11
     TYSON FOODS, INC., et al,
12
                  Defendants.
13
                        VOLUME II OF THE VIDEOTAPED
14
     DEPOSITION OF BERNARD ENGEL, PhD, produced as a
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     witness on behalf of the Defendants in the above
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      styled and numbered cause, taken on the 9th day of
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     January, 2009, in the City of Tulsa, County of
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19
     Tulsa, State of Oklahoma, before me, Lisa A.
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     Steinmeyer, a Certified Shorthand Reporter, duly
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      certified under and by virtue of the laws of the
22
      State of Oklahoma.
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1	(Whereupon, the court reporter read	
2	back the previous question.)	
3	A It's going to be approximately 2.8 percent.	
4	Q How did you get there?	
5	A Well, again, because it was calibrated, so I	03:35PM
6	guess I didn't compute that as a percentage. So,	
7	again, here's the logics of it. Because it was	
8	calibrated to match the observed data, we know the	
9	phosphorus loads in that coefficient is about 2.8	
10	percent. GLEAMS is reproducing that. So, you know,	03:35PM
11	without doing a calculation specific to GLEAMS, it	
12	has to be about 2.8 percent.	
13	Q I'm lost, and I need you to help me, Dr.	
14	Engel. What coefficient are you referring to that	
15	is 2.8 percent?	03:36PM
16	A That would be the amount of phosphorus or	
17	yes, the amount of phosphorus in poultry waste	
18	that's land applied that one would expect to see in	
19	an average year based on '97 to 2006 at the three	
20	gauging stations in the IRW.	03:36PM
21	Q When I heard you say coefficient, I thought	
22	you were describing an actual input to the model.	
23	Did I misunderstand that?	
24	A I'm sorry. You know, there's not there is	
25	not a specific coefficient that I put into the	03:36PM

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1	A Well, in that there's documentation that
2	shows Peterson Farms growers applied waste within
3	the watershed. You know, the model indicates that
4	that runs off, carries phosphorus. Literature
5	indicates that when it's land applied, it runs off 04:37PM
6	and carries phosphorus, carries bacteria, carries
7	other things. So it does carry a suite of potential
8	contaminants.
9	Q But you haven't attributed any mass of
10	phosphorus or any percentage of the total loading to 04:38PM
11	either Peterson Farms or Tyson Foods or Simmons Food
12	or George's or any defendant in this case; that's
13	correct, isn't it?
14	MR. GARREN: Object to form.
15	A Correct. I've not performed that allocation. 04:38PM
16	Q On Page 28 of your report, your summary table
17	of the sewage treatment plants, Table 6.1.
18	A Okay.
19	Q Why is it you have zero load attributed to the
20	Watts sewage treatment plant? 04:38PM
21	A It looks like it was not zero in the early
22	part of my analysis, in the '90s through 2002.
23	Looks like I'm attributing zero to that from 2003 to
24	present, so
25	Q Why is the question? 04:39PM

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